

Message Text

UNCLASSIFIED

PAGE 01 TOKYO 01617 040214Z

ACTION EA-09

INFO OCT-01 ISO-00 OES-06 INT-05 ACDA-10 CIAE-00 DODE-00

PM-04 INR-07 L-03 NSAE-00 NASA-02 NSC-05 ERDA-07 EB-08

/067 W

-----040639Z 048897 /10

R 040127Z FEB 77

FM AMEMBASSY TOKYO

TO SECSTATE WASHDC 5241

INFO HICOMTERPACIS

UNCLAS TOKYO 1617

E.O. 11652: N/A

TAGS: TSPA, JA

SUBJECT: FUNCTIONAL DESCRIPTION OF SECOND JAPANESE IONOSPHERIC
SOUNDING SATELLITE (JISS-2)

REF: TOKYO 1112, STATE 20335

1. AS FOLLOW-UP TO PREVIOUS CALLS ON EMBASSY TO OBTAIN ASSISTANCE
IN RETURNING JAPANESE DOWN-RANGE TRACKING STATION TO KWAJALEIN,
NASDA OFFICIAL HAS PROVIDED EMBOFF WITH DOCUMENT WHICH GIVES
DESCRIPTION AND OPERATING PARAMETERS OF JISS-2, SCHEDULED FOR
LAUNCH IN FEB. 1978 AND REQUIRING USE OF KWAJALEIN STATION.

2. ON ASSUMPTION THAT DEPT., NASA, AND OTHER AGENCIES HAVE NOT
BEEN GIVEN THIS DOCUMENT BY GOJ WASHINGTON EMBASSY, FOLLOWING ARE
TECHNICAL DATA RECEIVED:

A. ORBIT

HEIGHT: 1,000 KM

INCLINATION: 70 DEG.

ECCENTRICITY: CIRCULAR ORBIT

PERIOD: 105 MIN.

B. EXPERIMENTAL EQUIPMENT

UNCLASSIFIED

UNCLASSIFIED

PAGE 02 TOKYO 01617 040214Z

1) TOPSIDE SOUNDER (TOP)

FREQUENCY RANGE: 0.5 TO 15 MHZ

TRANSMITTER POWER: 100 W (PEAK)

PULSE WIDTH: 250 - 300 MICROSEC.

MAXIMUM RANGE: 1,330 KM

2) RADIO NOISE RECEIVER

FREQUENCIES: 2.5, 5, 10, 25 MHZ

NOISE FIGURE: 10 DB

3) PLASMA MEASURING EQUIPMENT

ELECTRON AND ION DENSITIES: ONE THOUSAND TO ONE
MILLION PER CC

ELECTRON AND ION TEMPERATURES: 1,000 TO 5,000 DEG K

4) ION MASS SPECTROMETER

MASS RANGE: 1 TO 20 AMU

POSITIVE ION DENSITIES: ONE THOUSAND TO ONE MILLION
PER CC

C. HOUSEKEEPING SYSTEM

MEASUREMENT POINTS: VOLTAGES, CURRENTS, TEMPERATURES--
135 POINTS.

D. ATTITUDE CONTROL SYSTEM

SYSTEM: SPIN STABILIZATION (15 RPM)

SENSORS: SUN, EARTH AND MAGNETIC SENSORS

ACCURACY: PLUS OR MINUS 2.5 DEG

E. COMMAND SYSTEM

FREQUENCY: 148 MHZ BAND

MODULATION: AM BY TONE BURST SIGNALS

NOISE FIGURE: 5 DB

NUMBER: 72

F. TELEMETRY SYSTEM

FREQUENCIES: 136 AND 400 MHZ BANDS

MODULATION: BI-PHASE LEVEL PCM/PM

TRANSMITTING RATE: 1 KBPS AND 26 KBPS

UNCLASSIFIED

UNCLASSIFIED

PAGE 03 TOKYO 01617 040214Z

TRANSMITTER POWER: 1 W (136 MHZ), 0.7 W (400 MHZ)

G. ANTENNA SYSTEM

SOUNDER ANT: 2 CROSSED DIPOLES

TELEMETRY ANT.: TURN STYLE (VHF) AND WHIP (UHF)

H. POWER SYSTEM

SOLAR ARRAY: 70 W (MAXIMUM)

BATTERY: 5 AH, NI-CD

I. DESIGN LIFE:

70 PERCENT RELIABILITY AT 1.5 YEARS AFTER LAUNCH

J. STRUCTURE

WEIGHT: 140 KG

SHAPE: CYLINDRICAL CONFIGURATION, 94 CM DIAMETER,
82 CM LENGTH

HODGSON

UNCLASSIFIED

NNN

Message Attributes

Automatic Decaptioning: X
Capture Date: 01-Jan-1994 12:00:00 am
Channel Indicators: n/a
Current Classification: UNCLASSIFIED
Concepts: COMMUNICATION SATELLITES
Control Number: n/a
Copy: SINGLE
Sent Date: 04-Feb-1977 12:00:00 am
Decaption Date: 01-Jan-1960 12:00:00 am
Decaption Note:
Disposition Action: n/a
Disposition Approved on Date:
Disposition Case Number: n/a
Disposition Comment:
Disposition Date: 01-Jan-1960 12:00:00 am
Disposition Event:
Disposition History: n/a
Disposition Reason:
Disposition Remarks:
Document Number: 1977TOKYO01617
Document Source: CORE
Document Unique ID: 00
Drafter: n/a
Enclosure: n/a
Executive Order: N/A
Errors: N/A
Expiration:
Film Number: D770040-0240
Format: TEL
From: TOKYO
Handling Restrictions: n/a
Image Path:
ISecure: 1
Legacy Key: link1977/newtext/t19770270/aaaackcc.tel
Line Count: 115
Litigation Code IDs:
Litigation Codes:
Litigation History:
Locator: TEXT ON-LINE, ON MICROFILM
Message ID: babb97cb-c288-dd11-92da-001cc4696bcc
Office: ACTION EA
Original Classification: UNCLASSIFIED
Original Handling Restrictions: n/a
Original Previous Classification: n/a
Original Previous Handling Restrictions: n/a
Page Count: 3
Previous Channel Indicators: n/a
Previous Classification: n/a
Previous Handling Restrictions: n/a
Reference: 77 TOKYO 1112, 77 STATE 20335
Retention: 0
Review Action: RELEASED, APPROVED
Review Content Flags:
Review Date: 07-Oct-2004 12:00:00 am
Review Event:
Review Exemptions: n/a
Review Media Identifier:
Review Release Date: n/a
Review Release Event: n/a
Review Transfer Date:
Review Withdrawn Fields: n/a
SAS ID: 3403028
Secure: OPEN
Status: NATIVE
Subject: FUNCTIONAL DESCRIPTION OF SECOND JAPANESE IONOSPHERIC SOUNDING SATELLITE (JISS-2)
TAGS: TSPA, JA
To: STATE
Type: TE
vdkgvwkey: odhc://SAS/SAS.dbo.SAS_Docs/babb97cb-c288-dd11-92da-001cc4696bcc
Review Markings:
Margaret P. Grafeld
Declassified/Released
US Department of State
EO Systematic Review
22 May 2009
Markings: Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009